

amended to use consistent nomenclature. It is submitted that this rejection has been overcome.

With respect to the rejections of the claims as obvious, independent claim recites a specific series of layers formed on each other, as opposed to over each other.

Claim 4 also recites that the source/drain regions of the n-channel device are provided within the silicon epitaxial layer formed on the relax layer, while the source/drain regions of the p-channel device are provided within the silicon-germanium compound layer formed on the substrate and the silicon epitaxial cap layer formed on the silicon-germanium compound layer.

It is believed this rejection was raised solely because of the confusion in the wording of the claims, which has now been corrected.

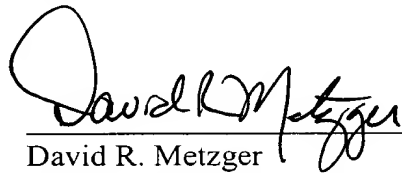
Kubo et al fails to fairly teach or suggest this structure. In contrast, it is clear that the source/drain regions are not so confined, nor are the silicon-germanium layers so bounded. In contrast, in *Kubo et al.*, the NMOS source drain regions extend in to the layer 15n. Moreover, there is the addition of the layer 14p in the PMOS region, which is not present in the present claims. Accordingly, *Kubo et al* does not suggest claim 4, nor any of the dependent claim 5-12.

Neither *Taylor et al.* nor *Imai et al* nor the combination of them with *Kubo et al.* fairly teaches or suggests a device having the layers as recited and the source/drain regions so confined.

New claim 13 merely recites with some specificity the vertical relationship of layers 7a and 6 and 7b as illustrated best in Fig. 1. This relationship clearly is not fairly shown or suggested in the prior art.

Accordingly, it is submitted that claims 4-13 are patentable and that the application is in condition for allowance. Notice to that effect is requested.

Respectfully submitted,

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MARKED-UP VERSION WITH CHANGES MADE

IN THE CLAIMS

Please cancel claim 4 as follows:

4. (Amended) A semiconductor device with p-channel and n-channel field effect devices formed on a common substrate, comprising:

a silicon substrate with p-channel and n-channel field effect regions corresponding to said p-channel and n-channel field effect devices, respectively,

said n-channel field effect region having a silicon-germanium buffer layer on said substrate, a silicon-germanium compound relax layer on said buffer layer, ~~a first silicon layer formed on said relax layer and a second silicon epitaxial layer formed on said first silicon~~ silicon germanium compound relax layer,

a concentration of germanium in said buffer layer being graduated so that it increases proceeding from a substrate side of said buffer layer to a relax layer side of said buffer layer,

a concentration of germanium in said relax layer being substantially the same as the concentration of germanium at said relax layer side of said buffer layer,

said p-channel field effect region having a silicon-germanium compound layer formed on said substrate and a silicon epitaxial cap layer formed on said silicon-germanium compound layer,

drain and source regions of said n-channel field effect device being within said ~~second silicon epitaxial layer formed on said first silicon layer and said first silicon layer on said relax layer~~, and

drain and source regions of said p-channel field effect device being within said silicon-germanium compound layer formed on said substrate and said silicon epitaxial cap layer formed on said silicon-germanium compound layer.

11. (Amended) The semiconductor device of claim 4 wherein said ~~first~~ second silicon epitaxial a layer has a thickness of about 100 nanometers.

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--13. (New) The semiconductor device of claim 4, wherein in cross section said p-channel field effect region silicon germanium layer and said second silicon epitaxial layer occupy substantially the same vertical spacing and position as said n-channel first silicon epitaxial layer.--

IN THE ABSTRACT OF THE DISCLOSURE

34 A semiconductor device with p-channel and n-channel field effect devices formed on a common substrate, where the drain and source regions of the n-channel field effect device are formed within a silicon epitaxial layer formed on a silicon layer germanium relax which is formed on a silicon germanium buffer layer with a graduated germanium concentration. Additionally, drain and source regions of the p-channel field effect device are formed within a silicon-germanium compound layer formed on the substrate and the silicon epitaxial cap layer formed on the silicon-germanium compound layer.
